

GSFC OPERATIONS CONTROL CENTER
GODDARD SPACE FLIGHT CENTER
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

VOLUME 7, NO. 16

AUGUST 31, 1967

SATELLITE SITUATION REPORT

THE FOLLOWING REPORT REFLECTS DATA COMPUTED AND COMPILED BY
GODDARD SPACE FLIGHT CENTER, NORAD, AND THE SMITHSONIAN ASTROPHYSICAL
OBSERVATORY AS OF 1200Z ON AUGUST 31, 1967

TRANSMITTING FREQUENCIES ARE SHOWN ONLY FOR SATELLITES BEING
MONITORED BY THE NASA SPACE TRACKING AND DATA ACQUISITION NETWORK (STADAN).

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCL- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1958 LAUNCHES									
ALPHA 1	EXPLORER 1	004	US	1 FEB	101.7	33.19	1339	334	
BETA 1		016	US	17 MAR	138.4	34.27	4317	650	
BETA 2	VANGUARD 1	005	US	17 MAR	134.0	34.24	3938	649	
BETA 3		1576	US	17 MAR	132.6	34.24	3808	662	
1959 LAUNCHES									
ALPHA 1	VANGUARD 2	011	US	17 FEB	125.4	32.87	3279	556	
ALPHA 2		012	US	17 FEB	129.6	32.91	3651	556	
ETA 1	VANGUARD 3	020	US	18 SEP	129.7	33.35	3703	512	
MU 1	LUNIK 1	112	USSR	2 JAN	HELIOCENTRIC ORBIT				
NU 1	PIONEER 4	113	US	3 MAR	HELIOCENTRIC ORBIT				
IOTA 1	EXPLORER 7	022	US	13 DEC	101.1	50.31	1067	552	
IOTA 2		023	US	13 DEC	100.8	50.30	1039	549	
1960 LAUNCHES									
ALPHA 1	PIONEER 5	027	US	11 MAR	HELIOCENTRIC ORBIT				
BETA 1		028	US	1 APR	99.1	48.38	735	691	
BETA 2	TIROS 1	029	US	1 APR	99.2	48.39	743	694	
BETA 3		101	US	1 APR	97.8	48.51	692	612	
BETA 4		115	US	1 APR	99.9	48.17	805	697	
GAMMA 2	TRANSIT 1B	031	US	13 APR	90.7	51.21	333	276	
GAMMA 4		099	US	13 APR	96.5	51.28	705	475	
ZETA 1	MIDAS 2	043	US	24 MAY	94.1	33.07	482	461	
ETA 1	TRANSIT 2A	045	US	22 JUN	101.6	66.70	1057	612	
ETA 2	GREB	046	US	22 JUN	101.5	66.70	1053	612	
ETA 3		047	US	22 JUN	101.4	66.68	1039	609	
ETA 4		840	US	22 JUN	101.5	66.70	1046	611	
ETA 5		841	US	22 JUN	101.4	66.70	1044	610	

OBJECTS IN ORBIT

CATALOGUE
NUMBER

CODE NAME

OBJECT

SOURCE

LAUNCH

PERIOD
MINUTES

INCLI-
NATION

APOGEE
Km.

PERIGEE
Km.

TRANSMITTING
FREQ. (MC/S)

1960 LAUNCHES (CONT'D)

IOTA 1		049	US	12 AUG	110.0	47.22	1300	1144
IOTA 2	ECHO 1	050	US	12 AUG	118.1	47.24	1693	1493
IOTA 3		051	US	12 AUG	118.2	47.21	1684	1520
IOTA 4		052	US	12 AUG	CURRENT ELEMENTS NOT MAINTAINED			
IOTA 5		053	US	12 AUG	118.4	47.27	1686	1535
NU 1		058	US	4 OCT	107.0	28.37	1214	961
NU 2	COURIER 1B	059	US	4 OCT	106.6	28.25	1208	923
XI 1		060	US	3 NOV	111.9	49.95	2213	418
XI 2	EXPLORER 8	062	US	3 NOV	111.1	49.96	2139	418
XI 3		069	US	3 NOV	105.8	49.38	1672	391
XI 4		105	US	3 NOV	108.4	50.48	1880	416
PI 1	TIROS 2	063	US	23 NOV	98.2	48.52	726	618
PI 2		064	US	23 NOV	98.0	48.53	713	610
PI 3		074	US	23 NOV	98.1	48.53	715	617
PI 4		075	US	23 NOV	98.2	48.52	727	619

1961 LAUNCHES

ALPHA 1	SAMOS 2	070	US	31 JAN	94.5	97.34	529	459
ALPHA 2		079	US	31 JAN	94.3	97.36	516	452
GAMMA 1	VENUS PROBE	080	USSR	12 FEB	HELIOCENTRIC ORBIT			
DELTA 2		082	US	16 FEB	118.5	38.86	2593	633
DELTA 3		085	US	16 FEB	117.8	38.86	2549	612
KAPPA 1		098	US	25 MAR	POSITION UNCERTAIN			
NU 1	EXPLORER 11	107	US	27 APR	107.8	28.80	1764	485
OMICRON 1	TRANSIT 4A	116	US	29 JUN	103.8	66.81	998	880
OMICRON 2	INJUN-SR-3	117	US	29 JUN	103.8	66.81	1000	880
OMICRON 3-212*			US	29 JUN				
RHO 1	TIROS 3	162	US	12 JUN	100.4	47.90	814	739
RHO 2		165	US	12 JUL	100.3	47.89	807	737

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1961 LAUNCHES (CONT'D)

RHO 3		166	US	12 JUL	98.8	47.95	789	610	
RHO 4		167	US	12 JUL	102.0	47.86	932	772	
SIGMA 1	MIDAS 3	163	US	12 JUL	161.5	91.19	3544	3346	
SIGMA 3		188	US	12 JUL	161.1	91.19	3539	3325	
SIGMA 4		196	US	12 JUL	161.9	91.20	3564	3360	
UPSILON 1	EXPLORER 12	170	US	16 AUG	CURRENT	ELEMENTS NOT MAINTAINED			
A DELTA 1	MIDAS 4	192	US	21 OCT	166.0	95.86	3751	3502	
A DELTA 3		194	US	21 OCT	165.6	95.83	3736	3486	
A DELTA 4		195	US	21 OCT	166.4	95.85	3800	3487	
A DELTA 5		2009	US	21 OCT	165.7	95.87	3732	3501	
A DELTA 6		2371	US	21 OCT	165.7	95.85	3932	3299	
A ETA 1	TRANSIT 4B	202	US	15 NOV	105.8	32.44	1105	953	
A ETA 2	TRAAC	205	US	15 NOV	105.8	32.44	1107	953	
A ETA 3		204	US	15 NOV	105.6	32.43	1098	948	

1962 LAUNCHES

ALPHA 1	RANGER 3	221	US	26 JAN	HELIOCENTRIC ORBIT				
ALPHA 2		222	US	26 JAN	HELIOCENTRIC ORBIT				
BETA 1	TIROS 4	226	US	8 FEB	100.4	48.29	842	708	
BETA 2		227	US	8 FEB	101.3	48.15	941	702	
BETA 3		228	US	8 FEB	99.4	48.44	760	702	
BETA 4		229	US	8 FEB	100.2	48.30	833	706	
ZETA 1	OSO 1	255	US	7 MAR	95.9	32.85	582	542	
ZETA 2		257	US	7 MAR	95.6	32.85	562	530	
KAPPA 1		271	US	9 APR	153.0	86.67	3410	2786	
KAPPA 3		273	US	9 APR	152.6	86.67	3385	2780	
KAPPA 4		274	US	9 APR	153.3	86.67	3436	2790	
MU 2		282	US	23 APR	HELIOCENTRIC ORBIT				
OMICRON 1	ARIEL 1	285	US/UK	26 APR	99.7	53.87	1100	388	
OMICRON 2		288	US	26 APR	99.3	53.85	1060	387	

OBJECTS IN ORBIT

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1962 LAUNCHES (CONT'D)									
A ALPHA 1	TIROS 5	309	US	19 JUN	100.4	58.10	969	591	
A ALPHA 2		311	US	19 JUN	100.3	58.09	957	587	
A ALPHA 3		312	US	19 JUN	101.7	58.21	1075	604	
A ALPHA 4		313	US	19 JUN	99.0	58.00	859	573	
A EPSILON 1	TELSTAR 1	340	US	10 JUL	157.8	44.78	5647	940	
A EPSILON 2		341	US	10 JUL	157.6	44.80	5635	939	
A OMICRON 1		369	US	23 AUG	99.5	98.65	853	619	
A OMICRON 2		370	US	23 AUG	98.1	98.54	735	597	
A OMICRON 3		378	US	23 AUG	100.7	98.82	963	621	
A OMICRON 4		388	US	23 AUG	99.4	98.65	850	618	
A RHO 1	MARINER 2	374	US	27 AUG	HELIOCENTRIC ORBIT				
A RHO 2		375	US	27 AUG	HELIOCENTRIC ORBIT				
A PSI 1	TIROS 6	397	US	18 SEP	98.7	58.32	702	692	
A PSI 2		398	US	18 SEP	98.6	58.32	697	684	
A PSI 3		399	US	18 SEP	99.3	58.43	771	683	
A PSI 4		400	US	18 SEP	97.9	58.21	684	638	
B ALPHA 1	ALOUETTE 1	424	CANADA	29 SEP	105.5	80.47	1036	999	\$136.591\$136.078
B ALPHA 2		426	US	29 SEP	105.4	80.47	1029	1001	\$136.980
B ALPHA 3		510	US	29 SEP	105.3	80.51	1022	1002	
B ALPHA 4		511	US	29 SEP	105.5	80.43	1044	991	
B GAMMA 1	EXPLORER 14	432	US	2 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B GAMMA 2#		NNA	US	2 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B ETA 1	RANGER 5	439	US	18 OCT	HELIOCENTRIC ORBIT				
B ETA 2		440	US	18 OCT	HELIOCENTRIC ORBIT				
B KAPPA 1		444	US	26 OCT	96.6	71.27	996	180	
B LAMBDA 1	EXPLORER 15	445	US	27 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B LAMBDA 2#		NNA	US	27 OCT	INSUFFICIENT OBSERVATIONS				
B MU 1	ANNA 1B	446	US	31 OCT	107.9	50.14	1181	1078	
B MU 2		447	US	31 OCT	107.6	50.14	1164	1069	
B NU 3		450	USSR	1 NOV	HELIOCENTRIC ORBIT				

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI- NATION	APOGEE		PERIGEE		TRANSMITTING FREQ. (MC/S)
							Km.	Km.	Km.	Km.	

1962 LAUNCHES (CONT'D)

B TAU 2	INJUN 3	504	US	13 DEC	102.0	70.34	1485		225		
B TAU 6		520	US	13 DEC	99.3	70.26	1221		226		
B UPSILON 1	RELAY 1	503	US	13 DEC	185.1	47.52	7435		1323		
B UPSILON 2		515	US	13 DEC	184.9	47.48	7415		1326		
B CHI 1	EXPLORER 16	506	US	16 DEC	104.4	52.00	1178		750		
B PSI 1	TRANSIT 5A	509	US	19 DEC	99.0	90.67	727		696		
B PSI 2		514	US	19 DEC	97.0	90.75	674		553		
B PSI 3		519	US	19 DEC	99.0	90.67	728		695		
B PSI 4		523	US	19 DEC	100.0	90.53	826		696		

1963 LAUNCHES

1963 03A		527	US	16 JAN	93.7	81.90	479		436		
1963 04A	SYNCOM 1	553	US	14 FEB	CURRENT ELEMENTS	NOT MAINTAINED					
1963 04B		532	US	14 FEB	512.3	32.82	29391		254		
1963 05A		534	US	19 FEB	97.6	100.48	785		501		
1963 05B		533	US	19 FEB	97.4	100.48	776		498		
1963 05C		535	US	19 FEB	96.0	100.50	679		460		
1963 05D		536	US	19 FEB	98.0	100.50	802		526		
1963 08B		566	USSR	2 APR	BARYCENTRIC ORBIT						
1963 13A	TELSTAR 2	573	US	7 MAY	225.3	42.82	10825		947		
1963 13B		575	US	7 MAY	225.1	42.79	10795		961		
1963 14A		574	US	9 MAY	166.4	87.31	3671		3620		
1963 14B		579	US	9 MAY	166.3	87.20	4510		2768		
1963 14C		608	US	9 MAY	166.4	87.31	3733		3558		
1963 14D		589	US	9 MAY	166.4	87.30	3736		3554		
1963 14E		602	US	9 MAY	166.1	87.32	3679		3583		
1963 14F		628	US	9 MAY	166.8	87.31	3679		3643		
1963 14G		629	US	9 MAY	166.4	87.29	3764		3525		

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1963 LAUNCHES (CONT'D)									
1963 14H		702	US	9 MAY	166.4	87.31	3709	3581	
1963 14J		2359	US	9 MAY	166.4	87.26	4009	3280	
1963 14K		2360	US	9 MAY	165.5	86.79	5180	2037	
1963 14L		2361	US	9 MAY	166.4	87.29	3958	3328	
1963 14M		2362	US	9 MAY	166.0	87.00	4710	2546	
1963 14N		2363	US	9 MAY	165.9	86.98	4835	2411	
1963 14P		2364	US	9 MAY	166.3	87.27	4148	3135	
1963 14Q		2365	US	9 MAY	166.3	87.23	4257	3026	
1963 14R		2366	US	9 MAY	165.7	86.87	5076	2158	
1963 14S		2367	US	9 MAY	165.7	86.90	4991	2242	
1963 14T		2372	US	9 MAY	166.4	87.25	4083	3205	
1963 14U		2373	US	9 MAY	165.7	86.91	4966	2265	
1963 14V		2374	US	9 MAY	165.7	86.92	4968	2268	
1963 14W		2375	US	9 MAY	166.0	87.06	4729	2523	
1963 14X		2377	US	9 MAY	166.2	87.20	4378	2899	
1963 14Y		2378	US	9 MAY	166.3	87.25	4181	3100	
1963 14Z		2379	US	9 MAY	166.0	87.09	4651	2605	
1963 14AA		2380	US	9 MAY	166.1	87.14	4531	2731	
1963 14AB		2381	US	9 MAY	166.3	87.21	4286	2994	
1963 14AC		2431	US	9 MAY	166.2	87.20	4417	2858	
1963 14AD		2496	US	9 MAY	165.5	86.78	5160	2060	
1963 14AE		2497	US	9 MAY	164.9	86.37	5567	1601	
1963 14AF		2499	US	9 MAY	165.1	86.53	5425	1756	
1963 14AG		2500	US	9 MAY	164.6	86.22	5665	1480	
1963 14AH		2522	US	9 MAY	165.4	86.78	5190	2021	
1963 14AJ		2530	US	9 MAY	166.3	87.22	4330	2949	
1963 14AK		2531	US	9 MAY	166.4	87.30	3665	3627	
1963 14AL		2532	US	9 MAY	166.2	87.20	4333	2941	
1963 14AM		2533	US	9 MAY	165.8	86.95	4897	2345	
1963 14AN		2638	US	9 MAY	166.4	87.28	3893	3394	
1963 14AP		2793	US	9 MAY	164.3	85.93	5802	1319	
1963 14AQ		2796	US	9 MAY	166.1	87.16	4503	2761	
1963 22A		594	US	16 JUN	99.6	89.98	757	727	

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1963 LAUNCHES (CONT'D)									
1963 22B	TIROS 7	603	US	16 JUN	99.6	89.98	761	724	\$136.233\$136.924
1963 22C		610	US	16 JUN	101.1	90.20	887	740	
1963 22D		611	US	16 JUN	97.7	89.79	740	559	
1963 24A		604	US	19 JUN	97.4	58.23	639	627	
1963 24B		605	US	19 JUN	97.1	58.23	626	618	
1963 24C		606	US	19 JUN	97.8	58.37	667	640	
1963 24D	RESEARCH SATELLITE FOR GEOPHYSICS	607	US	19 JUN	96.7	58.10	628	577	
1963 25B		614	US	27 JUN	131.4	82.14	4027	342	
1963 26A		612	US	28 JUN	101.7	49.73	1263	414	
1963 27A		613	US	29 JUN	94.2	82.33	497	463	
1963 30A	SN-39	622	US	18 JUL	167.8	88.41	3736	3669	\$136.653
1963 30B		635	US	18 JUL	167.8	88.40	3741	3663	
1963 30C		630	US	18 JUL	167.5	88.40	3731	3645	
1963 30D		624	US	18 JUL	166.8	87.35	5007	2315	
1963 30E		631	US	18 JUL	168.3	88.41	3794	3645	
1963 31A		634	US	26 JUL	1434.6	30.36	35793	35720	
1963 31B		625	US	26 JUL	418.5	32.89	24030	225	
1963 38A		669	US	28 SEP	107.1	89.90	1110	1077	
1963 38B		670	US	28 SEP	107.3	89.93	1135	1076	
1963 38C		671	US	28 SEP	107.3	89.91	1134	1075	
1963 38D		672	US	28 SEP	107.3	89.91	1129	1077	
1963 38E		745	US	28 SEP	107.1	89.92	1111	1072	
1963 38F	2097	US	28 SEP	107.3	89.90	1130	1075		
1963 39A	674	US	17 OCT	6486.2	37.62	120393	97269	CURRENT ELEMENTS NOT MAINTAINED	
1963 39B	675	US	17 OCT	6513.0	36.61	116358	101939		
1963 39C	692	US	17 OCT	6513.0	36.61	116358	101939		
1963 43A	683	USSR	1 NOV	101.7	58.91	1344	337		

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1963 LAUNCHES (CONT'D)									
1963 46A	EXPLORER 18	693	US	27 NOV	CURRENT	ELEMENTS	NOT MAINTAINED		
1963 47A	CENTAUR 2	694	US	27 NOV	107.7	30.37	1761	475	
1963 47B		696	US	27 NOV	107.0	30.07	1598	579	
1963 47C		697	US	27 NOV	107.2	30.05	1612	575	
1963 47D		698	US	27 NOV	108.0	29.91	1654	609	
1963 47E		699	US	27 NOV	108.3	30.47	1718	576	
1963 47F		700	US	27 NOV	108.6	30.48	1749	574	
1963 47G		701	US	27 NOV	107.8	30.00	1639	605	
1963 47H		739	US	27 NOV	105.9	30.43	1581	485	
1963 47J		1994	US	27 NOV	108.5	30.53	1742	568	
1963 47K		2886	US	27 NOV	108.9	29.87	1680	663	
1963 49A		703	US	5 DEC	106.8	89.95	1093	1067	
1963 49B		704	US	5 DEC	107.1	89.94	1121	1068	
1963 49C		705	US	5 DEC	107.1	89.93	1120	1068	
1963 49D		706	US	5 DEC	107.0	89.94	1119	1063	
1963 49E		715	US	5 DEC	107.0	89.94	1118	1065	
1963 49F		753	US	5 DEC	107.1	89.94	1119	1068	
1963 49G		2432	US	5 DEC	107.1	89.94	1124	1065	
1963 49H		2620	US	5 DEC	106.8	89.95	1094	1065	
1963 53A	EXPLORER 19	714	US	19 DEC	113.9	78.75	2092	716	
1963 53B		721	US	19 DEC	115.8	78.59	2394	594	
1963 53C		722	US	19 DEC	115.6	78.62	2341	629	
1963 53D		723	US	19 DEC	115.6	78.61	2351	614	
1963 53E		724	US	19 DEC	115.7	78.62	2350	625	
1963 53F		725	US	19 DEC	115.5	78.59	2345	609	
1963 53G		726	US	19 DEC	115.5	78.60	2347	611	
1963 53H		732	US	19 DEC	115.6	78.63	2334	631	
1963 54A	TIROS 8	716	US	21 DEC	99.3	58.50	747	707	
1963 54B		717	US	21 DEC	99.2	58.54	741	702	
1963 54C		720	US	21 DEC	101.0	58.48	914	703	
1963 54D		736	US	21 DEC	97.6	58.52	697	587	

OBJECTS IN ORBIT

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1964 LAUNCHES									
1964 01A		727	US	11 JAN	103.4	69.91	933	912	
1964 01B	GRAVITY GRADIENT 1	728	US	11 JAN	103.4	69.91	933	911	
1964 01C	EGRS 1	729	US	11 JAN	103.4	69.89	933	911	
1964 01D	SOLAR RAD.	730	US	11 JAN	103.4	69.91	934	911	
1964 01E		731	US	11 JAN	103.4	69.91	934	911	
1964 02A		733	US	19 JAN	101.3	99.14	847	793	
1964 02B		734	US	19 JAN	101.2	99.14	829	809	
1964 02C		735	US	19 JAN	101.3	99.15	833	809	
1964 03A	RELAY 2	737	US	21 JAN	194.7	46.32	7426	2073	\$136.620\$136.142
1964 03B		738	US	21 JAN	194.8	46.30	7433	2072	
1964 04A	ECHO 2	740	US	25 JAN	106.4	81.50	1076	1043	
1964 04B		741	US	25 JAN	108.9	81.50	1308	1048	
1964 04C		742	US	25 JAN	108.8	81.47	1305	1043	
1964 04D		743	US	25 JAN	108.8	81.53	1307	1040	
1964 06A	ELEKTRON 1	746	USSR	30 JAN	169.0	60.87	7086	411	
1964 06B	ELEKTRON 2	748	USSR	30 JAN	1356.3	58.29	65201	3220	
1964 06C		750	USSR	30 JAN	166.9	60.92	6917	410	
1964 06D		751	USSR	30 JAN	1384.0	58.27	66179	3343	
1964 11A		759	US	28 FEB	94.0	82.08	474	463	
1964 15A	ARIEL 2	771	US/UK	27 MAR	93.3	51.65	605	262	
1964 15C		847	US	27 MAR	99.0	51.37	1058	357	
1964 16D		785	USSR	2 APR	HELIOCENTRIC ORBIT				
1964 26A		801	US	4 JUN	103.0	90.52	950	858	
1964 26B		805	US	4 JUN	103.8	90.18	975	903	
1964 26C		806	US	4 JUN	102.2	90.84	943	787	
1964 26D		809	US	4 JUN	103.1	90.53	949	860	
1964 31A		812	US	18 JUN	101.6	99.84	840	828	
1964 31B		813	US	18 JUN	101.6	99.85	839	831	
1964 31C		815	US	18 JUN	101.5	99.87	842	824	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1964 LAUNCHES (CONT'D)									
1964 35A		824	US	2 JUL	94.3	82.08	497	474	
1964 38A	ELEKTRON 3	829	USSR	10 JUL	167.9	60.90	6983	423	
1964 38B	ELEKTRON 4	830	USSR	10 JUL	1313.8	58.69	64884	1832	
1964 38C		831	USSR	10 JUL	167.6	60.90	6987	393	
1964 38D		832	USSR	10 JUL	1341.2	58.80	65951	1868	
1964 40A		836	US	17 JUL	6024.3	38.40	103970	102621	
1964 40B		837	US	17 JUL	6002.5	40.12	120936	85124	
1964 40C		838	US	17 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1964 41B		843	US	28 JUL	BARYCENTRIC ORBIT				
1964 45B		851	US	14 AUG	123.1	95.66	3366	272	
1964 47A	SYNCOM 3	858	US	19 AUG	1435.9	1.53	35790	35775	
1964 47B		862	US	19 AUG	CURRENT ELEMENTS NOT MAINTAINED				
1964 49D		869	USSR	22 AUG	717.4	68.14	39040	1302	
1964 49E	COSMOS 41	898	USSR	22 AUG	718.0	67.73	39339	1027	
1964 51A	EXPLORER 20	870	US	22 AUG	103.9	79.90	1019	870	
1964 51B		871	US	25 AUG	103.8	79.91	1016	866	
1964 51C		873	US	25 AUG	101.4	79.82	873	778	
1964 51D		874	US	25 AUG	101.6	79.80	926	747	
1964 51E		875	US	25 AUG	101.9	79.81	966	728	
1964 52A	NIMBUS 1	872	US	28 AUG	97.7	98.76	874	423	
1964 52B		878	US	28 AUG	97.8	98.76	888	425	
1964 53A	COSMOS 44	876	USSR	28 AUG	99.5	65.07	864	605	
1964 53B		877	USSR	28 AUG	99.6	65.08	795	683	
1964 54A	OGO 1	879	US	5 SEP	3841.0	53.81	127344	22387	\$136.200\$400.250 \$400.850
1964 60A	EXPLORER 21	889	US	4 OCT	CURRENT ELEMENTS NOT MAINTAINED				
1964 63A		893	US	6 OCT	106.3	89.89	1076	1038	
1964 63B		897	US	6 OCT	106.6	89.88	1082	1058	
1964 63C		900	US	6 OCT	106.5	89.88	1079	1056	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1964 LAUNCHES (CONT'D)									
1964 63D		901	US	6 OCT	106.6	89.88	1084	1058	
1964 63E		902	US	6 OCT	106.6	89.88	1082	1059	
1964 63F		903	US	6 OCT	106.6	89.88	1080	1060	
1964 64A	EXPLORER 22	899	US	10 OCT	104.7	79.69	1080	888	\$136.171\$162\$324 \$20\$40\$41\$360
1964 64B		907	US	10 OCT	104.7	79.70	1079	888	
1964 64C		976	US	10 OCT	104.0	79.33	1062	838	
1964 64D		977	US	10 OCT	105.5	80.06	1126	910	
1964 72A		922	US	4 NOV	94.5	82.05	501	487	
1964 72B		925	US	4 NOV	91.8	82.02	360	360	
1964 73A	MARINER 3	923	US	5 NOV	HELIOCENTRIC ORBIT				
1964 74A	EXPLORER 23	924	US	6 NOV	99.0	51.95	963	461	
1964 76A	EXPLORER 24	931	US	21 NOV	108.6	81.33	1784	538	136.709
1964 76B	EXPLORER 25	932	US	21 NOV	116.2	81.36	2487	531	
1964 76C		933	US	21 NOV	116.2	81.35	2486	533	
1964 76D		934	US	21 NOV	115.4	81.35	2416	537	
1964 76E		935	US	21 NOV	115.3	81.30	2409	535	
1964 76F		936	US	21 NOV	106.3	81.21	1580	526	
1964 76G		937	US	21 NOV	115.5	81.35	2433	521	
1964 76H		939	US	21 NOV	106.1	81.24	1528	569	
1964 76I		940	US	21 NOV	115.2	81.36	2382	524	
1964 76J		941	US	21 NOV	115.8	81.37	2445	536	
1964 76K		960	US	21 NOV	115.6	81.36	2432	537	
1964 76L		1411	US	21 NOV	115.3	81.22	2422	520	
1964 77A	MARINER 4	938	US	28 NOV	HELIOCENTRIC ORBIT				
1964 77B		942	US	28 NOV	HELIOCENTRIC ORBIT				
1964 78C	ZOND 2	945	USSR	30 NOV	HELIOCENTRIC ORBIT				
1964 83A		953	US	13 DEC	106.1	89.94	1075	1022	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI- NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1964 LAUNCHES (CONT'D)									
1964 83B		956	US	13 DEC	106.3	89.94	1088	1023	
1964 83C		959	US	13 DEC	106.3	89.94	1090	1024	
1964 83D		965	US	13 DEC	106.3	89.94	1087	1027	
1964 83E		966	US	13 DEC	106.3	89.94	1091	1022	
1964 83F		967	US	13 DEC	106.3	89.94	1089	1022	
1964 83G		1099	US	13 DEC	106.3	89.94	1089	1024	
1964 83H		1528	US	13 DEC	107.0	89.91	1137	1042	
1964 83J		1608	US	13 DEC	106.3	89.94	1089	1022	
1964 83K		2798	US	13 DEC	106.0	89.92	1090	998	
1964 86A	EXPLORER 26	963	US	21 DEC	440.3	20.07	25314	270	
1965 LAUNCHES									
1965 03A		973	US	19 JAN	97.3	98.74	807	458	
1965 04A	TIROS 9	978	US	22 JAN	119.2	96.41	2584	705	\$136.234\$136.918
1965 04B		979	US	22 JAN	119.3	96.43	2593	705	
1965 04C		1312	US	22 JAN	118.0	96.35	2510	676	
1965 04D		1313	US	22 JAN	120.4	96.42	2665	733	
1965 07A	OSO 2	987	US	3 FEB	96.4	32.87	626	544	
1965 07B		988	US	3 FEB	96.4	32.87	624	540	
1965 08A		1001	US	11 FEB	145.4	32.14	2794	2762	
1965 08B		1000	US	11 FEB	145.6	32.14	2793	2785	
1965 08C		1002	US	11 FEB	145.7	32.14	2806	2779	
1965 09A	PEGASUS 1	1085	US	16 FEB	96.8	31.77	709	495	\$136.410\$136.890
1965 09B		1088	US	16 FEB	97.0	31.76	725	498	
1965 10B		1087	US	17 FEB	BARYCENTRIC ORBIT				
1965 11A	COSMOS 54	1089	USSR	21 FEB	99.0	56.05	1165	254	
1965 11B	COSMOS 55	1090	USSR	21 FEB	96.8	56.01	956	248	
1965 11C	COSMOS 56	1091	USSR	21 FEB	94.1	55.97	710	228	
1965 11D		1092	USSR	21 FEB	102.5	56.06	1484	266	
1965 14A	COSMOS 58	1097	USSR	21 FEB	96.7	65.03	646	559	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI- NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 14B		1098	USSR	26 FEB	96.8	65.05	706	505	
1965 16A	GREB	1271	US	9 MAR	103.5	70.08	941	908	
1965 16B	GRAVITY GRADIENT 2	1244	US	9 MAR	103.5	70.08	942	908	
1965 16C	GRAVITY GRADIENT 3	1292	US	9 MAR	103.5	70.08	941	908	
1965 16D	SOLAR RAD.	1291	US	9 MAR	103.5	70.08	941	909	
1965 16E	EGRS 3	1208	US	9 MAR	103.5	70.08	940	908	\$136.840
1965 16F	OSCAR 3	1293	US	9 MAR	103.5	70.08	939	908	
1965 16G	SURCAL	1310	US	9 MAR	103.3	70.08	916	914	
1965 16H	DODECAHEDRON	1272	US	9 MAR	103.5	70.08	941	908	
1965 16J		1245	US	9 MAR	103.5	70.08	940	906	
1965 17B	EGRS 2	1250	US	11 MAR	93.8	89.97	658	268	
1965 17C		1228	US	11 MAR	89.6	89.99	272	223	
1965 20A	COSMOS 61	1267	USSR	15 MAR	96.3	56.00	911	248	
1965 20B	COSMOS 62	1268	USSR	15 MAR	99.0	56.04	1169	252	
1965 20C	COSMOS 63	1269	USSR	15 MAR	94.3	55.98	729	235	
1965 20D-20EL**			USSR	15 MAR					
1965 21A		1273	US	18 MAR	97.4	99.02	752	524	
1965 21C		1289	US	18 MAR	97.3	99.03	744	521	
1965 21E		1376	US	18 MAR	95.9	99.02	625	502	
1965 21F		1463	US	18 MAR	98.4	99.03	839	524	
1965 23B		1298	US	21 MAR	BARYCENTRIC ORBIT				
1965 27A		1314	US	3 APR	111.5	90.24	1318	1276	
1965 27B	EGRS 4	1315	US	3 APR	111.4	90.25	1318	1271	
1965 27C		1316	US	3 APR	111.4	90.25	1319	1269	
1965 27D		1389	US	3 APR	111.5	90.22	1320	1271	
1965 27E		1399	US	3 APR	111.5	90.20	1321	1273	
1965 28A	EARLY BIRD	1317	US	6 APR	1435.5	2.18	35818	35730	
1965 28B		1318	US	6 APR	CURRENT ELEMENTS NOT MAINTAINED				
1965 30A	MOLNIYA 1	1324	USSR	23 APR	721.4	66.99	38849	1688	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCL- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1965 LAUNCHES (CONT'D)									
1965 30D		1967	USSR	23 APR	702.6	65.26	38038	1565	
1965 31B		1329	US	28 APR	94.6	95.18	520	481	
1965 32A	EXPLORER 27	1328	US	29 APR	107.8	41.19	1310	941	\$136.740\$162\$324 \$20\$40\$41\$360
1965 32B		1358	US	29 APR	107.8	41.18	1313	937	
1965 32C		1995	US	29 APR	106.7	41.10	1286	857	
1965 32D		2011	US	29 APR	109.0	41.20	1279	1081	
1965 34A		1359	US	6 MAY	157.0	32.12	3740	2782	
1965 34B		1360	US	6 MAY	309.8	32.10	14825	2749	
1965 34C		1361	US	6 MAY	145.6	32.14	2791	2783	
1965 34D		2529	US	6 MAY	309.8	32.13	14740	2831	
1965 38A		1377	US	20 MAY	99.9	98.52	962	552	
1965 38B		1378	US	20 MAY	99.9	98.52	962	552	
1965 38C		1379	US	20 MAY	99.8	98.54	947	556	
1965 38E		1461	US	20 MAY	100.8	98.56	1046	552	
1965 38F		1462	US	20 MAY	98.8	98.51	854	549	
1965 38G		1475	US	20 MAY	100.0	98.49	970	552	
1965 39A	PEGASUS 2	1381	US	25 MAY	97.0	31.77	717	506	\$136.410;\$136.889
1965 39B		1385	US	25 MAY	97.1	31.77	732	507	
1965 42A	EXPLORER 28	1388	US	29 MAY	8342.0	53.61	227456	32290	
1965 44A	LUNIK 6	1393	USSR	8 JUN	HELIOCENTRIC ORBIT				
1965 48A		1420	US	24 JUN	106.9	89.96	1140	1030	
1965 48B		1428	US	24 JUN	106.6	89.96	1110	1030	
1965 48C		1425	US	24 JUN	106.9	89.96	1140	1027	
1965 48D		1435	US	24 JUN	106.9	89.95	1139	1030	
1965 48E		2701	US	24 JUN	106.6	89.97	1110	1029	
1965 50A		1422	US	25 JUN	93.8	107.62	466	460	
1965 51A	TIROS 10	1430	US	2 JUL	100.6	98.57	836	745	
1965 51B		1433	US	2 JUL	100.7	98.60	840	745	
1965 51C		1440	US	2 JUL	99.3	98.47	838	613	
1965 51D		1529	US	2 JUL	102.0	98.68	887	823	
1965 53A	COSMOS 71	1441	USSR	16 JUL	94.9	56.06	526	504	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>	
1965 LAUNCHES (CONT'D)										
1965 53B	COSMOS 72	1442	USSR	16 JUL	95.8	56.07	573	539		
1965 53C	COSMOS 73	1443	USSR	16 JUL	95.4	56.07	541	533		
1965 53D	COSMOS 74	1444	USSR	16 JUL	96.1	56.05	602	540		
1965 53E	COSMOS 75	1445	USSR	16 JUL	96.4	56.05	629	540		
1965 53F		1448	USSR	16 JUL	96.5	56.07	636	545		
1965 53H		1473	USSR	16 JUL	96.0	56.06	613	525		
1965 53J		2338	USSR	16 JUL	93.3	56.10	436	427		
1965 55A		1447	US	17 JUL	93.7	70.17	472	441		
1965 56A	ZOND 3	1454	USSR	18 JUL	HELIOCENTRIC ORBIT					
1965 58A		1458	US	20 JUL	6702.4	33.97	119263	103491		
1965 58B		1459	US	20 JUL	6702.4	33.40	125819	96936		
1965 58C		1460	US	20 JUL	CURRENT ELEMENTS NOT MAINTAINED					
1965 60A	PEGASUS 3	1467	US	30 JUL	94.7	28.86	512	491	\$136.410\$136.590	
1965 60B		1468	US	30 JUL	95.0	28.87	526	509		
1965 62B		1472	US	3 AUG	93.8	107.36	464	458		
1965 63A	EGRS 5	1506	US	10 AUG	122.2	69.23	2426	1136		
1965 63B		1502	US	10 AUG	122.2	69.24	2424	1139		
1965 64A	CENTAUR 6	1503	US	11 AUG	BARYCENTRIC ORBIT					
1965 65A		1504	US	13 AUG	108.1	90.02	1190	1090		
1965 65B		1508	US	13 AUG	107.9	89.99	1164	1096		
1965 65C		1510	US	13 AUG	108.0	90.01	1191	1080		
1965 65D		1511	US	13 AUG	108.1	90.00	1192	1088		
1965 65E		1512	US	13 AUG	108.1	90.02	1196	1085		
1965 65F		1514	US	13 AUG	108.1	90.00	1197	1086		
1965 65G		1515	US	13 AUG	108.0	90.01	1194	1081		
1965 65H		1520	US	13 AUG	108.1	90.01	1197	1085		
1965 65J		1521	US	13 AUG	108.1	90.01	1195	1086		
1965 65K		1577	US	13 AUG	108.1	90.04	1197	1086		
1965 65L		1522	US	13 AUG	108.1	90.01	1196	1087		

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCL- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1965 LAUNCHES (CONT'D)									
1965 65M		2335	US	13 AUG	108.1	90.01	1192	1085	
1965 70A	COSMOS 80	1570	USSR	3 SEP	115.0	56.06	1550	1359	
1965 70B	COSMOS 81	1571	USSR	3 SEP	115.3	56.06	1551	1390	
1965 70C	COSMOS 82	1572	USSR	3 SEP	115.7	56.07	1560	1413	
1965 70D	COSMOS 83	1573	USSR	3 SEP	116.1	56.05	1564	1443	
1965 70E	COSMOS 84	1574	USSR	3 SEP	116.4	56.06	1569	1472	
1965 70F		1575	USSR	3 SEP	114.6	56.13	1515	1359	
1965 72A		1580	US	10 SEP	101.9	98.58	1052	650	
1965 72D		1583	US	10 SEP	101.9	98.58	1050	651	
1965 72E		1931	US	10 SEP	103.3	98.60	1181	650	
1965 72F		1932	US	10 SEP	100.7	98.57	935	647	
1965 73A	COSMOS 86	1584	USSR	18 SEP	115.1	56.06	1635	1281	
1965 73B	COSMOS 87	1585	USSR	18 SEP	115.5	56.06	1646	1307	
1965 73C	COSMOS 88	1586	USSR	18 SEP	115.8	56.06	1659	1328	
1965 73D	COSMOS 89	1587	USSR	18 SEP	116.3	56.06	1675	1349	
1965 73E	COSMOS 90	1588	USSR	18 SEP	116.7	56.05	1677	1384	
1965 73F		1589	USSR	18 SEP	116.8	56.05	1694	1381	
1965 73G		1590	USSR	18 SEP	116.5	56.09	1684	1361	
1965 73H		1591	USSR	18 SEP	116.7	56.05	1696	1367	
1965 73J		1617	USSR	18 SEP	117.5	56.12	1769	1366	
1965 73K		1618	USSR	18 SEP	117.7	56.19	1764	1390	
1965 73L		2647	USSR	18 SEP	116.1	56.04	1670	1345	
1965 78A		1613	US	5 OCT	125.4	144.28	3425	413	
1965 78B		1616	US	5 OCT	125.3	144.28	3415	414	
1965 81A	OGO 2	1620	US	14 OCT	104.0	87.34	1480	420	\$136.200\$400.250 \$400.850
1965 81B		1625	US	14 OCT	104.0	87.36	1474	421	
1965 82A	TITAN 3 C4	1624	US	15 OCT	99.7	32.33	768	715	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1965 LAUNCHES (CONT'D)									
1965 82B-82LA***			US	15 OCT					
1965 84E		2098	USSR	19 OCT	93.0	48.44	459	384	
1965 89A	EXPLORER 29	1726	US	6 NOV	120.3	59.39	2273	1118	
1965 89B		1729	US	6 NOV	120.3	59.39	2273	1117	
1965 89C		2700	US	6 NOV	119.2	59.58	2225	1066	
1965 89D		2888	US	6 NOV	121.3	59.23	2340	1142	
1965 91A	VENERA 2	1730	USSR	12 NOV	HELIOCENTRIC ORBIT				
1965 92D		1736	USSR	16 NOV	HELIOCENTRIC ORBIT				
1965 93A	EXPLORER 30	1738	US	19 NOV	100.7	59.71	899	689	\$136.530
1965 93B		1739	US	19 NOV	100.7	59.71	875	712	
1965 93C		2013	US	19 NOV	100.3	59.69	845	697	
1965 93D		2088	US	19 NOV	101.4	59.73	918	730	
1965 96A	A-1	1778	FRANCE	26 NOV	108.6	34.27	1797	528	
1965 96B		1805	FRANCE	26 NOV	108.7	34.26	1800	530	
1965 96D		1996	FRANCE	26 NOV	108.5	34.27	1778	528	
1965 98A	ALOUETTE 2	1804	CANADA	29 NOV	121.3	79.83	2972	509	\$136.080\$136.590
1965 98B		1806	US	29 NOV	120.8	79.83	2921	514	\$136.980
1965 98C	EXPLORER 31	1807	US	29 NOV	121.3	79.84	2968	510	\$136.380
1965 98D		1808	US	29 NOV	120.8	79.84	2924	513	
1965 98E		1944	US	29 NOV	121.4	79.83	2978	509	
1965 98F		1948	US	29 NOV	121.1	79.90	2950	513	
1965 98G		1951	US	29 NOV	121.0	79.76	2943	507	
1965 98H		2092	US	29 NOV	121.3	79.87	2969	511	
1965 98J		2153	US	29 NOV	121.2	79.75	2963	507	
1965 101A	FR-1	1814	FRANCE	6 DEC	99.9	75.88	760	747	\$136.350;135.800
1965 101B		1815	US	6 DEC	100.0	75.87	768	751	
1965 101C		1934	US	6 DEC	99.8	76.48	778	726	
1965 101D		1935	US	6 DEC	99.4	75.27	772	693	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1965 LAUNCHES (CONT'D)									
1965 105A	PIONEER 6	1841	US	16 DEC	HELIOCENTRIC ORBIT				
1965 105B		1842	US	16 DEC	96.8	30.18	937	265	
1965 106A	COSMOS 100	1843	USSR	17 DEC	97.5	65.01	656	628	
1965 106B		1844	USSR	17 DEC	97.7	65.01	751	546	
1965 108A	TITAN 3 C-8	1863	US	21 DEC	CURRENT ELEMENTS NOT MAINTAINED				
1965 108B	LES 4	1870	US	21 DEC	585.1	26.50	35212	216	
1965 108C	OSCAR 4	1902	US	21 DEC	CURRENT ELEMENTS NOT MAINTAINED				
1965 108D	LES 3	1941	US	21 DEC	CURRENT ELEMENTS NOT MAINTAINED				
1965 109A		1864	US	22 DEC	105.0	89.10	1082	912	
1965 109B		1865	US	22 DEC	105.0	89.10	1085	908	
1965 109C		2086	US	22 DEC	103.7	89.20	982	886	
1965 109D		2226	US	22 DEC	107.3	89.10	1300	909	
1965 109E		2353	US	22 DEC	105.5	89.38	1140	894	
1965 112A	COSMOS 103	1868	USSR	28 DEC	96.9	56.04	628	596	
1965 112B-112Q****			USSR	28 DEC					
1966 LAUNCHES									
1966 00A\$		2428	UNKNOWN	UNKNOWN	159.2	35.18	6488	204	
1966 00B\$		2429	UNKNOWN	UNKNOWN	163.0	85.14	6166	847	
1966 00C\$		2430	UNKNOWN	UNKNOWN	162.9	85.30	6131	841	
1966 05A		1952	US	28 JAN	105.9	89.70	1215	862	
1966 05B		1953	US	28 JAN	105.9	89.71	1215	862	
1966 05C		2140	US	28 JAN	107.9	89.89	1392	865	
1966 05D		2141	US	28 JAN	104.4	89.73	1092	846	
1966 05E		2889	US	28 JAN	109.6	89.49	1345	1079	
1966 06D		2001	USSR	31 JAN	BARYCENTRIC ORBIT				
1966 08A	ESSA-1	1982	US	3 FEB	100.3	97.93	842	704	
1966 08B		1983	US	3 FEB	100.5	97.93	869	701	
1966 08C		2085	US	3 FEB	99.2	97.78	752	690	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1966 LAUNCHES (CONT'D)									
1966 08D		2118	US	3 FEB	101.3	98.09	958	688	
1966 08E		2154	US	3 FEB	100.3	97.85	831	714	
1966 09A		1997	US	9 FEB	94.3	82.08	489	485	
1966 13A	D-1A	2017	FRANCE	17 FEB	118.6	34.07	2731	505	
1966 13B		2016	FRANCE	17 FEB	118.6	34.09	2726	504	
1966 13C		2018	FRANCE	17 FEB	103.2	34.12	1361	444	
1966 13D		2020	FRANCE	17 FEB	97.5	34.04	605	379	
1966 13F		2023	FRANCE	17 FEB	117.3	34.04	2631	488	
1966 13G		2161	FRANCE	17 FEB	119.3	34.14	2773	520	
1966 16A	ESSA 2	2091	US	28 FEB	113.5	100.92	1417	1357	\$136.770\$137.500
1966 16B		2096	US	28 FEB	113.5	100.90	1419	1358	
1966 16C		2223	US	28 FEB	111.9	100.85	1389	1243	
1966 16D		2224	US	28 FEB	115.1	100.99	1567	1352	
1966 19A	GEMINI AGENA TARGET VEHICLE	2104	US	16 MAR	89.9	28.88	262	262	
1966 24A		2119	US	26 MAR	105.3	89.73	1127	893	
1966 24B		2120	US	26 MAR	105.3	89.74	1126	895	
1966 24C		2386	US	26 MAR	105.2	90.11	1113	895	
1966 25A	OVI-4	2121	US	30 MAR	104.1	144.51	1012	887	
1966 25B	OVI-5	2122	US	30 MAR	105.6	144.64	1059	986	
1966 25C		2123	US	30 MAR	105.6	144.65	1060	985	
1966 25D		2124	US	30 MAR	104.1	144.51	1012	886	
1966 26A		2125	US	31 MAR	100.5	98.55	935	631	
1966 26B		2129	US	31 MAR	100.5	98.56	934	630	
1966 26D		2177	US	31 MAR	102.3	98.56	1112	630	
1966 26E		2178	US	31 MAR	98.7	98.55	765	627	
1966 26F		2179	US	31 MAR	100.2	93.54	907	629	
1966 27A	LUNA 10	2126	USSR	31 MAR	SELENOCENTRIC ORBIT				
1966 27D		2130	USSR	31 MAR	HELIOCENTRIC ORBIT				

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1966 LAUNCHES (CONT'D)									
1966 27E		2131	USSR	31 MAR	BARYCENTRIC ORBIT				
1966 27F		2132	USSR	31 MAR	BARYCENTRIC ORBIT				
1966 31A	0AO 1	2142	US	8 APR	100.9	35.05	804	792	
1966 31B		2144	US	8 APR	100.8	35.05	803	788	
1966 31C		2145	US	8 APR	100.8	35.04	797	788	
1966 34A	OV3-1	2150	US	22 APR	151.2	82.45	5690	356	
1966 34B		2167	US	22 APR	150.7	82.45	5649	357	
1966 34C		2208	US	22 APR	151.6	82.41	5701	376	
1966 34D		2209	US	22 APR	149.5	82.41	5577	324	
1966 35A	3rd MOLNIYA	2151	USSR	25 APR	705.6	65.15	38840	910	
1966 38A	COSMOS 118	2168	USSR	11 MAY	97.1	65.02	634	604	
1966 38B		2169	USSR	11 MAY	96.9	65.00	663	563	
1966 39B		2172	US	14 MAY	95.1	109.95	539	507	
1966 40A	NIMBUS 2	2173	US	15 MAY	108.1	100.30	1182	1098	\$136.500\$136.950 \$137.200\$1707.5
1966 40B		2174	US	15 MAY	107.9	100.30	1173	1086	
1966 41A		2176	US	19 MAY	103.4	89.89	980	861	
1966 41B		2180	US	19 MAY	103.4	89.89	987	856	
1966 41C		2225	US	19 MAY	101.3	89.88	863	776	
1966 41D		2644	US	19 MAY	105.6	89.91	1195	853	
1966 44A	EXPLORER 32	2183	US	25 MAY	115.0	64.72	2645	265	
1966 44B		2184	US	25 MAY	110.2	64.63	2205	256	
1966 44C		2336	US	25 MAY	112.2	64.59	2333	314	
1966 45B		2187	US	30 MAY	BARYCENTRIC ORBIT				
1966 49A	OGO 3	2195	US	7 JUN	2913.3	49.43	120126	2248	\$136.200\$400.250 \$400.850
1966 52A		2201	US	10 JUN	143.2	40.83	4731	641	
1966 52B		2206	US	10 JUN	143.1	40.85	4730	640	
1966 52C		2498	US	10 JUN	141.2	40.63	4623	579	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1966 LAUNCHES (CONT'D)									
1966 52D		2516	US	10 JUN	145.3	41.05	4857	693	
1966 53A		2207	US	16 JUN	1333.9	.91	33858	33663	
1966 53B		2215	US	16 JUN	1334.6	.91	33870	33680	
1966 53C		2216	US	16 JUN	1335.3	1.00	33923	33657	
1966 53D		2217	US	16 JUN	1336.5	1.09	33989	33637	
1966 53E		2218	US	16 JUN	1338.6	.96	34017	33694	
1966 53F		2219	US	16 JUN	1340.9	.94	34093	33712	
1966 53G		2220	US	16 JUN	1344.0	.91	34231	33695	
1966 53H		2221	US	16 JUN	1347.6	.97	34359	33711	
1966 53J		2222	US	16 JUN	CURRENT ELEMENTS NOT MAINTAINED				
1966 56A	PAGEOS 1	2253	US	24 JUN	180.1	86.15	5772	2601	
1966 56B		2255	US	24 JUN	181.2	86.94	4260	4203	
1966 56C		2256	US	24 JUN	181.4	86.89	4279	4193	
1966 56D		2511	US	24 JUN	181.5	86.99	4260	4224	
1966 57A	COSMOS 122	2254	USSR	25 JUN	97.0	64.99	631	602	
1966 57B		2257	USSR	25 JUN	97.0	65.00	695	535	
1966 58A	EXPLORER 33	2258	US	1 JUL	23434.0	49.20	431334	98438	\$136.020
1966 58C		2260	US	1 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1966 63A	OVI -8	2324	US	14 JUL	104.4	144.20	1004	929	
1966 63B		2327	US	14 JUL	105.2	144.23	1013	994	
1966 63C		2328	US	14 JUL	105.3	144.24	1010	1000	
1966 63D		2329	US	14 JUL	105.4	144.25	1017	1009	
1966 63E		2337	US	14 JUL	105.3	144.24	1012	1003	
1966 70A	OV3-3	2389	US	4 AUG	136.5	81.50	4448	363	
1966 70B		2404	US	4 AUG	136.1	81.49	4410	364	
1966 70C		2521	US	4 AUG	131.5	81.39	4091	284	
1966 70D		2800	US	4 AUG	138.9	81.48	4585	426	
1966 73B		2395	US	10 AUG	BARYCENTRIC ORBIT				
1966 74B		2397	US	16 AUG	94.6	93.16	504	498	
1966 75A	PIONEER 7	2398	US	17 AUG	HELIOCENTRIC ORBIT				

OBJECTS IN ORBIT

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1966 LAUNCHES (CONT'D)									
1966 75C		2402	US	17 AUG	HELIOCENTRIC ORBIT				
1966 76A		2401	US	18 AUG	106.8	88.85	1103	1055	
1966 76B		2413	US	18 AUG	106.8	88.86	1102	1056	
1966 76C		2580	US	18 AUG	105.4	89.16	1090	935	
1966 76D		2702	US	18 AUG	108.4	88.59	1221	1087	
1966 77A		2403	US	19 AUG	167.5	90.10	3702	3678	
1966 77B	EGRS 7	2411	US	19 AUG	167.5	90.09	3701	3677	\$136.800
1966 77C	ERS-15	2412	US	19 AUG	167.6	90.09	3700	3687	&136.440
1966 78A	LUNA 11	2406	USSR	24 AUG	SELENOCENTRIC ORBIT				
1966 82A		2418	US	16 SEP	100.8	98.47	903	694	
1966 82B		2422	US	16 SEP	100.8	98.43	904	694	
1966 83B		2420	US	16 SEP	93.4	94.01	451	430	
1966 84B		2426	US	20 SEP	BARYCENTRIC ORBIT				
1966 87A	ESSA 3	2435	US	2 OCT	114.6	101.06	1487	1389	\$136.770
1966 87B		2436	US	2 OCT	114.6	101.08	1488	1388	
1966 87C		2518	US	2 OCT	115.9	100.85	1562	1436	
1966 87D		2775	US	2 OCT	113.3	101.27	1475	1284	
1966 89A		2481	US	5 OCT	167.6	90.20	3702	3681	
1966 89B		2520	US	5 OCT	167.6	90.21	3703	3686	
1966 92A	EGRS 8		USSR	20 OCT	717.6	64.92	39890	464	
1966 94A	4th MOLNIYA 1	2501	USSR	22 OCT	SELENOCENTRIC ORBIT				
1966 95B	LUNA 12	2508	US	25 OCT	BARYCENTRIC ORBIT				
1966 96A	INTEL SAT 2 F-1	2514	US	26 OCT	717.7	16.90	37176	3172	
1966 97A	OV3-2	2517	US	28 OCT	103.0	81.99	1487	314	
1966 97B		2519	US	28 OCT	102.3	82.00	1418	314	
1966 97C		2613	US	28 OCT	91.9	81.90	509	221	
1966 97D		2614	US	28 OCT	104.8	82.00	1598	372	
1966 100A	LUNAR ORBITER 2	2534	US	6 NOV	SELENOCENTRIC ORBIT				

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1966 LAUNCHES (CONT'D)									
1966 110A	ATS-1	2608	US	7 DEC	1436.1	.10	35792	35781	\$136.470\$137.350
1966 110B		2609	US	7 DEC	521.7	30.90	29986	188	
1966 111A	OV1-9	2610	US	11 DEC	142.2	99.09	4818	477	
1966 111B	OV1-10	2611	US	11 DEC	98.8	93.40	770	636	
1966 111C		2621	US	11 DEC	98.8	93.41	770	636	
1966 111D		2622	US	11 DEC	142.2	99.10	4820	474	
1966 117A	COSMOS 137	2627	USSR	21 DEC	97.0	48.76	1002	214	
1966 117B		2630	USSR	21 DEC	93.9	48.74	700	202	
1966 118A		2634	US	29 DEC	94.1	75.03	476	473	
1967 LAUNCHES									
1967 01A	INTEL SAT 2 F-2	2639	US	11 JAN	1436.2	1.65	35793	35783	
1967 01D		2643	US	11 JAN	652.9	26.18	36810	288	
1967 03A		2645	US	18 JAN	1329.5	.39	33829	33518	
1967 03B		2649	US	18 JAN	1330.0	.44	33844	33521	
1967 03C		2650	US	18 JAN	1330.7	.53	33846	33548	
1967 03D		2651	US	18 JAN	1332.1	.46	33873	33579	
1967 03E		2652	US	18 JAN	1334.2	.38	33935	33599	
1967 03F		2653	US	18 JAN	1336.6	.39	33993	33638	
1967 03G		2654	US	18 JAN	1339.5	.49	34127	33622	
1967 03H		2655	US	18 JAN	1343.1	.36	34224	33666	
1967 03J		2660	US	18 JAN	ELEMENTS NOT AVAILABLE				
1967 06A	ESSA 4	2657	US	26 JAN	113.4	101.98	1443	1327	\$136.770\$137.500
1967 06B		2661	US	26 JAN	113.6	101.96	1446	1343	
1967 06C		2706	US	26 JAN	114.3	102.10	1452	1395	
1967 06D		2707	US	26 JAN	112.6	101.84	1466	1233	

OBJECTS IN ORBIT

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1967 LAUNCHES (CONT'D)									
1967 08A	LUNAR ORBITER 3	2566	US	5 FEB	SELENOCENTRIC ORBIT				
1967 10A		2669	US	8 FEB	101.5	98.86	869	792	
1967 10B		2741	US	8 FEB	101.5	98.83	868	794	
1967 11A	DIADEME 1	2674	FRANCE	8 FEB	104.2	39.98	1345	569	
1967 11B		2671	FRANCE	8 FEB	104.3	39.97	1350	568	
1967 11C		2673	FRANCE	8 FEB	101.4	39.91	1101	539	
1967 11D		2675	FRANCE	8 FEB	101.7	39.93	1124	544	
1967 11E		2676	FRANCE	8 FEB	101.1	39.95	1075	544	
1967 11F		2677	FRANCE	8 FEB	101.9	40.02	1139	555	
1967 11G		2688	FRANCE	8 FEB	104.1	40.00	1330	567	
1967 11H		2689	FRANCE	8 FEB	105.0	39.97	1433	551	
1967 11J		2690	FRANCE	8 FEB	102.5	39.97	1188	558	
1967 11K		2691	FRANCE	8 FEB	100.6	40.01	1022	539	
1967 11L		2692	FRANCE	8 FEB	103.3	39.97	1263	560	
1967 11M		2900	FRANCE	8 FEB	104.1	39.94	1331	566	
1967 14A	DIADEME 2	2680	FRANCE	15 FEB	110.2	39.44	1879	590	
1967 14B		2682	FRANCE	15 FEB	110.3	39.45	1889	590	
1967 14C		2684	FRANCE	15 FEB	110.4	39.97	1891	595	
1967 14D		2681	FRANCE	15 FEB	107.9	39.52	1654	596	
1967 14E		2683	FRANCE	15 FEB	110.0	39.47	1859	591	
1967 14F		2685	FRANCE	15 FEB	110.0	38.92	1872	582	
1967 18A	COSMOS 144	2695	USSR	28 FEB	96.8	81.20	635	581	
1967 18B		2696	USSR	28 FEB	96.9	81.20	706	520	
1967 19A	COSMOS 145	2697	USSR	3 MAR	103.5	48.41	1624	212	
1967 19B		2698	USSR	3 MAR	101.3	48.40	1419	203	
1967 20A	OSO 3	2703	US	8 MAR	95.7	32.86	562	535	\$136.290
1967 20B		2704	US	8 MAR	95.5	32.86	549	528	

OBJECTS IN ORBIT

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1967 LAUNCHES (CONT'D)									
1967 26A	INTEL SAT 2 F-3	2717	US	23 MAR	1436.1	1.18	35799	37772	
1967 27A	COSMOS 151	2720	USSR	24 MAR	97.1	56.06	651	592	
1967 27B		2721	USSR	24 MAR	97.2	56.06	656	589	
1967 27C		2776	USSR	24 MAR	95.8	56.06	577	540	
1967 27D		2797	USSR	24 MAR	97.1	56.06	648	594	
1967 31A	ATS-2	2743	US	6 APR	202.5	28.43	9876	187	\$136.470\$137.350
1967 31B		2744	US	6 APR	200.3	28.42	9735	164	
1967 34A		2754	US	14 APR	106.5	90.26	1081	1051	
1967 34B		2755	US	14 APR	106.5	90.25	1083	1052	
1967 34C		2777	US	14 APR	104.3	90.32	1082	841	
1967 34D		2778	US	14 APR	108.8	90.23	1268	1073	
1967 35B		2764	US	17 APR	BARYCENTRIC ORBIT				
1967 36A	ESSA 5	2757	US	20 APR	113.5	101.92	1424	1357	\$136.770\$137.500
1967 36B		2758	US	20 APR	113.6	101.95	1424	1358	
1967 38A	SAN MARCO 2	2761	ITALY	26 APR	91.6	2.90	494	197	
1967 39A	COSMOS 156	2762	USSR	27 APR	96.9	81.19	640	585	
1967 39B		2763	USSR	27 APR	97.1	81.20	706	542	
1967 40A		2765	US	28 APR	6652.1	32.09	112627	108948	
1967 40B		2766	US	28 APR	6668.1	33.06	114578	107372	
1967 40C	ERS 18	2767	US	28 APR	2831.3	33.32	110842	8991	&136.530
1967 40D	ERS 20	2768	US	28 APR	2831.1	33.30	110848	8982	\$136.260
1967 40E	ERS 27	2769	US	28 APR	2827.8	33.29	110746	8979	&136.380
1967 40F		2770	US	28 APR	CURRENT ELEMENTS NOT MAINTAINED				
1967 41A	LUNAR ORBITER 4	2772	US	4 MAY	SELENOCENTRIC ORBIT				
1967 42A	ARIEL 3	2773	UK	5 MAY	95.6	80.16	597	498	136.560
1967 42B		2774	US	5 MAY	95.7	80.19	612	495	
1967 42C		2859	US	5 MAY	95.3	80.29	612	460	
1967 42D		2860	US	5 MAY	94.8	79.96	567	454	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1967 LAUNCHES (CONT'D)									
1967 43B		2780	US	9 MAY	98.3	84.96	804	559	
1967 45A	COSMOS 158	2801	USSR	15 MAY	100.4	74.04	824	738	
1967 45B		2802	USSR	15 MAY	100.6	74.01	850	731	
1967 45C		2823	USSR	15 MAY	100.7	74.03	844	740	
1967 46A	COSMOS 159	2805	USSR	17 MAY	CURRENT ELEMENTS NOT MAINTAINED				
1967 46F		2924	USSR	17 MAY	CURRENT ELEMENTS NOT MAINTAINED				
1967 48A		2807	US	18 MAY	107.0	89.58	1105	1072	
1967 48B		2811	US	18 MAY	107.0	89.58	1102	1073	
1967 51A	EXPLORER 34	2817	US	24 MAY	6358.2	67.17	214383	242	\$136.140
1967 52A	5th MOLNIYA 1	2822	USSR	24 MAY	712.9	64.74	39607	512	
1967 53A		2825	US	31 MAY	103.4	69.98	928	914	
1967 53B		2826	US	31 MAY	103.5	69.97	938	914	
1967 53C	GRAVITY GRADIENT 4	2828	US	31 MAY	103.4	69.98	929	914	\$137.740
1967 53D	GRAVITY GRADIENT 5	2834	US	31 MAY	103.4	69.98	928	914	\$137.980
1967 53E		2847	US	31 MAY	103.4	69.98	928	914	
1967 53F		2872	US	31 MAY	103.4	69.98	928	914	
1967 53G		2873	US	31 MAY	103.4	69.98	929	914	
1967 53H		2874	US	31 MAY	103.4	69.97	928	915	
1967 53J		2909	US	31 MAY	103.4	69.97	928	914	
1967 56A	COSMOS 163	2832	USSR	5 JUN	91.8	48.39	468	245	
1967 56B		2833	USSR	5 JUN	91.0	48.41	390	229	
1967 58A	VENERA 4	2840	USSR	12 JUN	HELIOCENTRIC ORBIT				
1967 59A	COSMOS 165	2842	USSR	12 JUN	99.9	81.88	1306	201	
1967 59B		2843	USSR	12 JUN	98.2	81.88	1142	198	
1967 60A	MARINER 5	2845	US	14 JUN	HELIOCENTRIC ORBIT				
1967 60B		2846	US	14 JUN	HELIOCENTRIC ORBIT				
1967 61A	COSMOS 166	2848	USSR	16 JUN	92.1	48.43	474	271	
1967 61B		2849	USSR	16 JUN	91.9	48.42	458	269	
1967 62B		2851	US	16 JUN	94.7	80.21	513	496	
1967 65A	EGRS 9	2861	US	29 JUN	172.1	89.81	3948	3798	\$136.840
1967 65B	AURORA 1	2876	US	29 JUN	172.1	89.83	3947	3799	137.140
1967 65C		2877	US	29 JUN	172.1	89.81	3948	3798	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1967 LAUNCHES (CONT'D)									
1967 66A	TITAN 3 C-14	2862	US	1 JUL	1309.7	7.09	33540	33010	
1967 66B		2863	US	1 JUL	1310.4	7.04	33549	33030	
1967 66C		2864	US	1 JUL	1311.8	7.04	33553	33080	
1967 66D		2865	US	1 JUL	1313.7	6.98	33563	33147	
1967 66E		2866	US	1 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1967 66F	DODGE	2867	US	1 JUL	1320.4	7.00	33698	33282	\$136.800
1967 66G		2868	US	1 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1967 68B		2883	US	14 JUL	BARYCENTRIC ORBIT				
1967 70A	EXPLORER 35	2884	US	19 JUL	SELENOCENTRIC ORBIT				\$136.110
1967 70B		2885	US	19 JUL	91.6	29.53	486	142	
1967 71A		2890	US	25 JUL	94.5	75.10	608	390	
1967 71C		2892	US	25 JUL	94.0	75.02	488	442	
1967 72A	OV1 86	2893	US	27 JUL	95.4	101.72	605	477	
1967 72B		2894	US	27 JUL	95.3	101.72	616	449	
1967 72C		2897	US	27 JUL	95.6	101.62	556	538	
1967 72D	OV1 12	2901	US	27 JUL	95.6	101.62	557	540	
1967 72E		2918	US	27 JUL	95.2	101.74	582	475	
1967 73A	OGO 4	2895	US	28 JUL	97.8	86.00	899	413	\$136.200\$400.250 \$400.850
1967 73B		2896	US	28 JUL	97.8	86.01	893	413	
1967 75A	LUNAR ORBITER 5	2907	US	1 AUG	SELENOCENTRIC ORBIT				
1967 75B		2908	US	1 AUG	BARYCENTRIC ORBIT				
1967 76A		2910	US	7 AUG	89.3	79.98	278	180	
1967 80A		2920	US	23 AUG	102.2	98.96	896	830	
1967 81A	COSMOS 173	2921	USSR	24 AUG	92.2	71.03	497	270	
1967 81B		2922	USSR	24 AUG	92.1	71.02	464	282	
1967 82A	COSMOS 174	2925	USSR	31 AUG	715.0	64.50	39750	500	
1967 82B		2926	USSR	31 AUG	91.1	64.80	464	200	
1967 82C		2927	USSR	31 AUG	91.3	64.70	478	206	
1967 82D		2928	USSR	31 AUG	90.8	64.80	432	201	

DECAYED OBJECTS

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>DECAY</u>
1966 13E		2021	FRANCE	17 FEB	25 AUG
1967 71B		2891	US	25 JUL	21 AUG
1967 76B		2923	US	7 AUG	25 AUG
1967 78A	COSMOS 172	2914	USSR	9 AUG	17 AUG
1967 79A		2919	US	16 AUG	29 AUG

FOLLOWING ARE THE INITIAL ELEMENTS OF OBJECTS WHOSE LAUNCH AND ORBIT DECAY OCCURRED WITHIN THE REPORTING PERIOD:

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>PERIOD MINUTES</u>	<u>INCL - NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1967 76B		2923	US	89.3	79.20	297	161	
1967 79A		2919	US	89.4	111.55	323	124	

* TWO HUNDRED AND TEN OBJECTS HAVE BEEN IDENTIFIED AS HAVING BEEN LAUNCHED WITH 1961 OMICRON 1 and 1961 OMICRON 2. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.

** ONE HUNDRED AND TWENTY EIGHT OBJECTS HAVE BEEN IDENTIFIED AS HAVING BEEN LAUNCHED WITH 1965 20A, 1965 20B, AND 1965 20C. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.

*** TWO HUNDRED AND SIXTY THREE OBJECTS HAVE BEEN IDENTIFIED AS DEBRIS ASSOCIATED WITH 1965 82A. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.

**** FOURTEEN OBJECTS HAVE BEEN IDENTIFIED AS DEBRIS ASSOCIATED WITH 1965 112A.

\$ TRANSMITTING ON COMMAND ONLY.

& TRANSMITTING WHEN IN SUNLIGHT ONLY.

NO CATALOGUE NUMBER ASSIGNED

\$\$ DEBRIS DISCOVERED IN ORBIT WHICH HAS NOT BEEN IDENTIFIED WITH ANY LAUNCHING OR COUNTRY OF ORIGIN.